

Amendments to the Claims:

This claim listing will replace all prior versions and listings of claims in the application:

Claim Listing:

1 – 44. (Canceled)

45. (Previously Presented) A method for modulating cell proliferation or differentiation of a cell comprising inhibiting specific histone deacetylase (HDAC) isoforms that is involved in cell proliferation or differentiation by contacting the cell with an agent that inhibits one or more specific histone deacetylase isoforms, but less than all histone deacetylase isoforms, wherein the agent is a histone deacetylase small molecule inhibitor.
46. (Original) The method according to claim 45, wherein the cell proliferation is neoplasia.
47. (Original) The method according to claim 46, wherein the histone deacetylase isoform is selected from the group consisting of HDAC-1, HDAC-2, HDAC-3, HDAC-4, HDAC-5, HDAC-6, HDAC-7 AND HDAC-8.
48. (Original) The method according to claim 47, wherein the histone deacetylase isoform is HDAC-1 and/or HDAC-4.
49. (Canceled)
50. (Previously Presented) A method for inhibiting neoplastic cell proliferation in an animal comprising administering to an animal having at least one neoplastic cell present in its body a therapeutically effective amount of an agent that inhibits one or more specific histone deacetylase isoforms, but less than all histone deacetylase isoforms, wherein the agent is a histone deacetylase small molecule inhibitor.

- 51. (Previously Presented) The method according to claim 50, wherein the animal is a human.
- 52 (Canceled)
- 53. (Previously Presented) The method according to claim 50, wherein the histone deacetylase isoform is selected from the group consisting of HDAC-1, HDAC-2, HDAC-3, HDAC-4, HDAC-5, HDAC-6, HDAC-7 AND HDAC-8.
- 54. (Previously Presented) The method according to claim 53, wherein the histone deacetylase isoform is HDAC-1 and/or HDAC-4.